

REMARKS

The present application contains claims 7-11, 13, 31-33 and 35-54. Claims 7-11, 13, and 31 are currently amended, claims 35-54 are currently added. Claims 7-11 were amended to depend on claim 31 and to adapt their wording to claim 31. Claim 31 was amended, for clarity, to use of the term 'cycle' which is believed to better reflect the invention than the term 'predetermined rates'. In addition, claim 31 was amended to state explicitly that the order of the quality of service is determined. This amendment finds support at least on page 13, line 31 – page 14, line 1.

New claims 35 and 48 find support at least on page 7, lines 2-5 and in Fig. 1. New claim 36 finds support throughout the application, particularly on page 1, lines 22-30, page 7, lines 13-16 and page 13, lines 4-13. New claims 37, 38 and 40 find support at least on original claims 1-3. New claim 39 finds support at least on page 4, lines 18-20. New claim 41 finds support at least on page 11, lines 18-21. New claim 42 finds support at least on page 13, lines 26-28. New claim 43 finds support at least on page 13, line 31 to page 14, line 1. New claim 44 finds support at least on page 14, lines 5-8. New claims 45, 51 and 53 find support at least on page 9, line 32. New claims 46, 50 and 54 find support at least on page 13, lines 31-32. Claim 47 corresponds to original claim 31 and finds support thereon. The apparatus terms of claim 47 are taken from original claim 17. New claim 49 finds support at least in original claim 33. New claim 52 finds support at least in original claim 33.

Applicants have decided to defer the handling of the subject matter of independent claims 1, 17 and 26 to a continuation application, and to have the present application concentrate on the issue of QoS of independent claim 31. Dependent claims 7-11 and 13 were accordingly made to depend on claim 31.

Claims 31-33 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Witchy (U.S. Patent No. 5,563,885) in view of Miller et al. (U.S. Patent No. 5,987,031).

Claim 31 was amended to state explicitly what was inherent in the claim, that the scheduling is responsive to the relative levels of quality of service of the connections.

Witchy describes a method of smoothing (restoring a substantially constant output rate) ATM data of a plurality of channels (column 2, lines 40-49). The smoothing is performed by determining the average output rate of each channel and transmitting the cells of each channel at its determined average output rate (column 2, lines 57-63). The average output rate is calculated based on a smoothing buffer size, which size is a function of the quality of service of the channel.

Even if the affect of the quality of service on the average output rate in Witchy could affect the scheduling order of the channels, this affect is not based on a determination of the quality of service level of the connections, as required by claim 31. Furthermore, Witchy does not teach or suggest basing the scheduling on the relative quality of service level.

The dependent claims add further patentability over Witchy. Claim 33, for example, requires changing the order of scheduling of the connections responsive to a change in the QoS of at least one of the connections. Witchy does not mention a change in the QoS of a connection and does not mention changing the order of handling of connections responsive to such a change. The quotations brought by the Examiner on columns 5 and 6 do not relate at all to either changing the order of handling of connections for any reason or to QoS. The Examiner did not relate to this claim in his response to arguments in the previous office action.

New claim 35, for example, requires that the plurality of channels connect to the remote access server through separate physical links. In Witchy, in contrast, the data of all the channels is received on the same network data input stream (abstract). New claim 36, for example, requires that the processing time of a connection does not affect the connection operation, provided the connection is processed within its respective cycle. In Witchy, the processing time affects the operation of the channel (that is what needs to be smoothed) and there are no cycles. New claim 41 requires changing the cycle time of at least one of the connections during its operation. As Witchy does not describe cycles as required by claim 31 it does not describe changing the cycles. New claim 45 requires giving precedence to connections having a high quality of service level. Witchy uses the buffer size in determining the needs of the connections not their preference.

New claim 47 requires a scheduler which determines for at least one of the channels a quality of service level and accordingly determines an order of handling of the channels. Witchy does not teach or suggest a scheduler which determines a quality of service level of at least one of the channels. The only relation to the quality of service in Witchy is through the nominal buffer size, and the scheduler of Witchy does not determine a quality of service of a connection.

Dependent claims 48, 49 and 50 are apparatus claims that correspond to claims 35, 33 and 46, respectively, and add patentably to their parent claims for the same reasons.

New independent claim 52 is a restatement of old claim 31 in which the processor is scheduled to process data from the plurality of connections in an order adjusted responsive to changes in the determined quality of service level. Witchey does not teach or suggest adjusting the scheduling responsive to changes in the quality of service level.

The dependent claims 53 and 54 add further patentability as discussed above regarding the other independent claims.

In view of the above amendments and remarks, applicants submit that the claims are patentable over the prior art. Allowance of the application is respectfully awaited. If the Examiner does not agree that the application is allowable, applicants respectfully request that the Examiner call the undersigned at 1 (877) 428-5468. Please note that this is a direct *toll free* number in the US that is answered in the undersigned's Israel office. Israel is 7 hours ahead of Washington.

Respectfully submitted,
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